



Dworshak Fisheries Complex

Monthly Activity Report



April Highlights

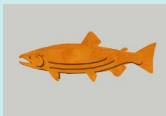
- **Dworshak -**

BY 14 SCS 2440,000 fry

BY 15 SST 2,799,292 egg/ fry

- **Kooskia -**

BY 14 SCS 850,730 fry



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U.S. Fish & Wildlife Service, Region 1

Volume 4, Issue 6

April 2015



Credit: Jill Olson, FWS

Steve Rodgers Dworshak Complex Manager



Steve Rodgers, Complex Manager



Credit: Jill Olson FWS

Carter Lopez pulling dam boards during the steelhead direct release.



Credit: Jill Olson, FWS

Angela Feldmann pushing the last steelhead smolts to the Clearwater River.



Credit: Jill Olson, FWS

Jayson Thompson moving fish crowders during steelhead release.

Dworshak Hatchery Headlines - Izbicki, Sommer Asst. Managers

Dworshak Stock- Spring Chinook Salmon (SCS)

Brood Year 2014 (BY14)

Chinook were ponded into 18 raceways in April. At the end of the month there were 2,524,377 fry at 1167 fpp. Mortality was 1.43%. There are 10 distinctive PBT groups ponded: 6 for the density study (3 high density and 3 low density), one for general Dworshak production, one for Selway production, one for Nez Perce Tribal Hatchery (NPTH) additional Lower Snake River Comp. Program (LSRCP) production, and one excess fish production, which will be transferred to NPTH with the LSRCP fish.

Coho Salmon (COS)

Brood Year 2013

Nothing reported at time of printing.

Brood Year 2014

Nothing reported at time of printing.

Dworshak Stock Summer Steelhead (SST)

Brood Year 2014

Steelhead were released in April. See Table 1 for details on out-plant and direct releases.

Table 1. BY14 SST releases by site

Release sites	Systems	Number	Wt	fpp	Length in	Length mm	Density Index (at release)	Flow Index	Release Dates
Red House	1,2,3	484,298	87,447	5.5	8.4	214.5	0.30	1.02	4/13/1 - 4/16/15
Clear Creek	1,2	320,229	53,464	6.0	8.2	208.9	0.28	1.04	4/13/15 - 4/15/15
Lolo	1	252,230	36,033	7.0	7.8	198.3	0.27	0.92	4/17/15 - 4/20/15
Direct Release	1,2,3	1,423,989	251,035	5.7	8.4	212.7	0.29	0.97	22-Apr-15
Total/Ave		2,480,746	427,979	5.8	8.3	211.2	0.29	0.99	

Brood Year 2015

Spawning was completed on April 14, 2015. There were a total of 147 females spawned at Take 10: Ninety females were spawned for Magic Valley Hatchery, and 57 females for Dworshak production. Magic Valley eggs were transported as green eggs to Clearwater Hatchery where they will be incubated.

Takes 1 and 2 were early returning fish and were kill spawns; takes 3, 4, and 5 were air spawned for the CRITFC/NPT Kelt program. Takes 5-8 were South Fork Localized Broodstock. Fish were spawned for Magic Valley during Take 8

(Continued on page 3)

Dworshak Hatchery Headlines - Izbicki, Sommer Asst. Managers

Dworshak Stock Summer Steelhead (SST)

(Continued from page 2)

Brood Year 2015

and 10; fish were spawned for Dworshak production during Takes 7-9. Expected fecundity is 6541 eggs/female for kill spawning, and 5773 eggs/female for air spawning.

At the end of April, there were 2,060,139 fry in the nursery from takes 1-5, 7, and 8. Some of these fish were ponded as swim up fry and some were put into egg jars after enumeration. Fry averaged 763 fpp. Green eggs from takes 9-10 are being reared in incubation to swim-up fry stage. There were approximately 739,130 eggs in incubation at the end of April.

SUMMARY

Table 2. Total Production—Fish on Station (4/30/15).

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SCS BY14	14	fry	2,440,000	2,163	1128	1.4	36
COS BY14	14	fry	not reported				
SST BY 15	15	eggs/fry	2,799,292				
SST BY14	14	Systems	2,480,746	427,979	6	8.3	211
Total Fish/Fry on Station EOM			7,720,038	427,979			

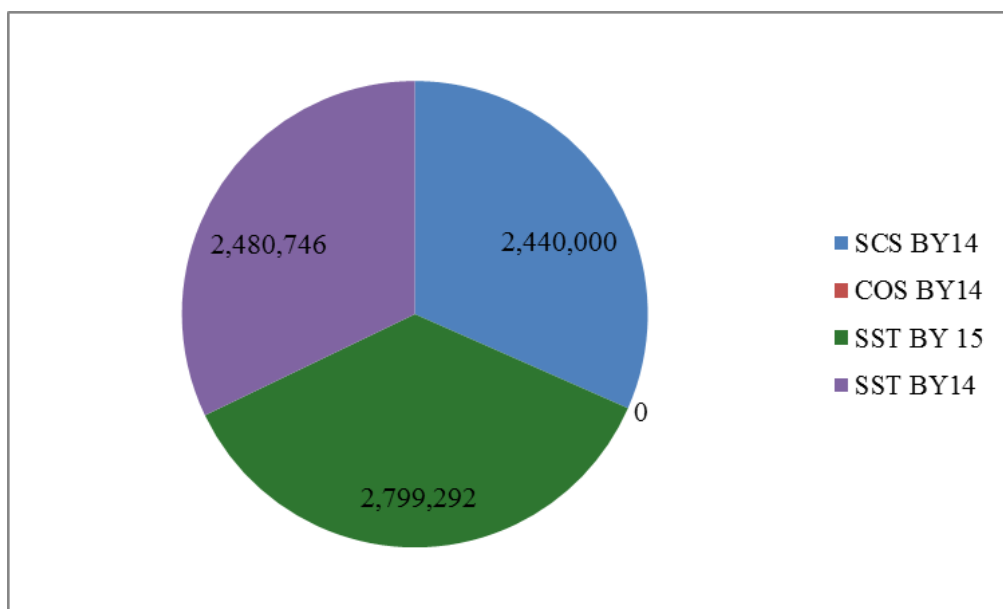


Figure 1. April 30, 2015: Total Fish on Station.



Dworshak Production Monitoring and Evaluation - Peery

- We participated in the weekly technical coordination calls between the Federal, private, state and Tribal co-managers and staffs in the Snake River basin to discuss the pre-season status and progress of adult spring Chinook salmon returning from the ocean to spawn.
- The Dworshak spring Chinook production team met on April 2nd and 27th to discuss various on-going on-station activities, upcoming issues, and to summarize and assimilate production and M and E data for the month.
- Staff attended the inter-agency spring Chinook salmon coordination meeting in Lewiston on April 17 to finalize information for the previous year and discuss plans for collection of broodstock and harvest for the upcoming year.
- Staff coordinated with production in planning the ponding of BY14 spring Chinook salmon out of the incubation room and into the raceways. Planning for the final year of on-station rearing of the Density Evaluation Study, coded -wire tagging, PIT-tagging and transfer of non-service program fish next August/September was completed.
- Staff coordinated the transfer of 1,000 BY13 spring Chinook salmon smolts to the Army Corp of Engineers for research at Ice Harbor Dam.
- The Hatchery Genetic Management Plan for Dworshak NFH spring Chinook salmon was reviewed and updated to incorporate the increased production being implemented on the station.
- Staff continued to participate with the co-managers and the Lower Snake River Compensation Plan Office in Boise in the development of plans to increase the production of spring Chinook salmon at the various production facilities in the Clearwater River basin.

Aquatic Conservation - Faler

- Participated in the monthly NWR Climate Change monitoring conference call, and provided an update for monitoring on Kootenai NWR.
- Participated in the region-wide ACT conference call, and provided a station update of recent activities.
- Downloaded hobo temperature loggers and re-installed a pressure logger on Myrtle Creek for the aquatic climate change monitoring program on National Wildlife Refuges.
- Reviewed the Kootenai Tribes plans and alternatives for Kootenai River floodplain restoration on the Kootenai National Wildlife Refuge.
- Worked on an interagency agreement with the Idaho Panhandle National Forest for 2 fish passage projects.

Salmon Sub-Office - Brostrom

- Worked with IDFG to finalize draft Beaverhead Ecoregion Section of the State Wildlife Action Plan for internal IDFG review.
- Worked with Salmon School District and Salmon School Garden committee to finalize budget for funded Connecting People with Nature Project. The CPWN project will fund pollinator curricula and books, a soil testing kit, bug sampling supplies and drip irrigation supplies for the pollinator garden.
- Attended via phone the Greater Yellowstone Coordinating Committee AIS annual meeting.
- Met with Salmon Valley Stewardship to discuss ongoing college intern job responsibilities and a new high school intern for 2015-2016. Both are funded via the Youth in the Great Outdoors station funds.
- Submitted a proposal for the Youth in the Great Outdoors High School Intern.
- Discussed how the Idaho FRO uses Surrogate Species with Dave Hopper, Boise ES.

Snake River fall Chinook Salmon Research - Connor

During April 2015, the staff of the fall Chinook salmon research team accomplished the following:

- Fifteen permanent stations located along the Snake River from Hells Canyon Dam to the upper end of Lower Granite Reservoir were beached seine over a three-day period each week of the month. Juvenile fall Chinook salmon were counted, measured, and PIT tagged.
- The fall Chinook salmon recovery plan was reviewed.
- Work continued on compiling an input data set for estimating the daily passage abundance of natural- and hatchery-origin fall Chinook salmon at Lower Granite Dam.
- An MLE method and a Bayesian method were refined as components of the daily passage abundance modelling framework.
- The manuscript "Survival, Growth, and Tag Retention in Age-0 Chinook Salmon Implanted with 8-mm, 9-mm, and 12-mm PIT Tags" coauthored by USGS, IFRO, and NPT DFRM was accepted for publication in the North American Journal of Fisheries Management.
- Joint work with staff of the Idaho Power Company and University of Idaho continued on the manuscript "Use of a Small Unmanned Aircraft System for Chinook Salmon Redd Surveys" continued.
- Work also continued on the multi-agency/tribal monograph "A Retrospective (circa 1800–201X) on Abundance, Spatial Distribution, and Management of Snake River Basin Fall Chinook Salmon."
- Information on juvenile fall Chinook salmon presence was provided to the USACE to help plan marina dredging in Lewiston.
- Management and administration of the two BPA-funded research projects continued.

Taking a closer look !

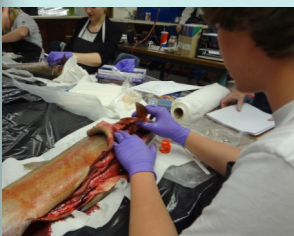
Students from Nez Perce High School engage in a fish anatomy lesson with Jill Olson and Outreach Volunteer Karen Loranger



Credit: Karol Holthaus



Credit: Karol Holthaus



Credit: Karol Holthaus

Idaho Fish Health Center

April 2015

Bacteriology: Laura performed assays on 11 cases this month: 5 pre-releases, 1 WFS case, 2 monthly monitoring and 3 diagnostics. *F. psychrophilum*, was isolated and confirmed in three cases; 2 diagnostic and one monitoring. Sensitivities on TYES showed FFC was best choice for treatment. *Pseudomonas fluorescens* was isolated in 3 diagnostic cases with two of them being a co-infection with CWD.

Virology: Corie along with Ashlie Peterson ran a total of 246 samples representing 607 fish from Dworshak NFH, Nez Perce Tribal Hatchery, Hagerman NFH, Nez Perce Tribe Fall Chinook salmon acclimation program, Lyons Ferry Hatchery WDFW and the Wild Fish Survey. Corie also ran 53 blind passes representing 314 fish from the Nez Perce Tribal Hatchery, Hagerman NFH, Lyons Ferry Hatchery and the Nez Perce Tribe Fall Chinook acclimation program.

PCR: Laura amplified and ran gels on samples extracted last month. Five samples of yellow pigmented bacteria were ran, 3 of which were confirmed *F. psychrophilum*.

ELISA: Guppy tested 439 samples by the ELISA test for *Renibacterium salmoninarum*, the causative agent of Bacterial Kidney Disease on 4/15-16. These samples included primarily 2015 pre-release exams and Dworshak steelhead adults.

Parasitology: No WD samples processed this month.

Histology: 60 white sturgeon fin samples from each of two WDFW hatcheries including Sherman Creek and Columbia Basin were processed, stained and slides read for WDFW for White Sturgeon Iridovirus testing. All were negative for this virus.

FWS Hatcheries

Kooskia: Guppy and Ashlie visited Kooskia on 4/13 for routine monitoring exam. Two tanks of SCS fry with higher mortality were examined and bacteriology cultures were taken.

Hagerman: Corie traveled to Hagerman NFH on 4/21 to conduct the rainbow trout lot 146 prerelease exam. Monthly monitoring of the rainbow trout lot 145 was also conducted.

Dworshak: Increased mortality in tanks 502 and 602 was reported to the fish health center by Dworshak production 30 Mar 2015. Initial examination by Corie showed heavy bacteria on the gills. PCR was also performed to test for *F. psychrophilum*. PCR was negative and it was recommended to treat with Chloramine T for the bacterial gill disease. Bacteriology was also taken and was negative. Fish were examined again on 4/7. Mortality in tank 502 had decreased from 375 to 130. Kidney imprints were taken and some bacteria was observed. Bacteriology samples detected *P. fluorescens* and a small amount of *F. psychrophilum* in tank 502 and *P. fluorescens* in

Idaho Fish Health Center

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tank 602. It was recommended to decrease the feed and ensure tank was as clean as possible to minimize the bacterial load in the water. On 4/22 we were asked to examine the fish again due to continued high mortality. The mortality sheet indicated the mortality had dropped from the hundreds to 15 in 502 and 1 in 602. Fish were examined and light bacteria was observed in kidney and spleen imprints. Due to the decreased mortality it was recommended to continue previously recommended practices and to monitor the mortality for changes. The mortality did fluctuate from the 30 to 60 range. Tank 212 started to suffer increased mortality and was examined on 4/30. Again moderate levels of bacteria could be observed around the swollen gills. It was recommended to treat with Chloramine T for bacterial gill until the bacteriology samples could be completed. *F. psychrophilum* was cultured from every fish that was sampled. At this same time the mortality in 502 was still in the 50 range and tank 602 had jumped to 120. Kidney imprints were taken and light bacteria was observed in all of the imprints. It was recommended to treat tanks 212, 502 and 602 with florfenicol.

Ashlie assisted Corie in taking fish health samples for the last 2015 Dworshak steelhead spawning day on 4/14.

Guppy submitted Dworshak SCS fish health data for BY 2008 to the Idaho FRO for the BY 2008 report as requested.

NEZ PERCE TRIBE: Laura, Ashlie, and Corie performed pre-releases on FCS import from Lyon's Ferry; and two acclimation sites of Big Canyon and Pittsburg Landing. In addition, FCS pre-release exam was performed on fish at Sweetwater destined for Luke's Gulch and Cedar Flats acclimation sites. Laura and Ashlie performed monthly monitoring on SCS at NPTH.

Coho were ponded 4/30 and 4/31 from the incubation trays. No monthly monitoring was conducted.

Wild Fish Survey: Laura and Ashlie collected and processed 30 RBT/CUT/CBX samples from Clark Fork River as part of the sampling for cutthroat trout passage above Cabinet Gorge Dam. In addition, Laura set up sampling sites for this year with Idaho Fish and Game, Avista, and other partners. Laura participated in the monthly UAT calls on 4/2, 4/7 and 4/9.

Other

Ashlie Peterson from the Dexter Fish Health Center finished out her last 2 and 1/2 weeks of assistance to the Idaho FHC in April with her last day being April 17. Much thanks to Ashlie!

Laura attended an Amphibian Taxon Advisory Group meeting in Atlanta, GA April 13-17. She presented biosecurity training to 200 folks there.

Laura and Guppy attended a national fish health center conference call hosted by Joel Bader, National Aquatic Animal Health Coordinator on 4/6. Guppy attended the RO Project Leader conference call also on 4/6. In addition, she submitted the updated annual conference plan to the RO for the Idaho FHC as requested.

Guppy participated in a conference call hosted by Rod Engle on coordination for an implementation plan for additional LSRCP spring Chinook in the Clearwater Basin on 4/23.



Credit: Jill Olson, FWS

Volunteer Karen Loranger teaching students from Timberline Elementary School about anadromous fish life-cycle.



Credit: Tammy Northcutt

Making bead bracelets to illustrate the life cycle of anadromous fish.



Credit: Tammy Northcutt

Idaho Fish Health Center

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Interviews were conducted for the student Pathways position at the Idaho FHC during the week of April 6. In addition, a Term Microbiologist position for the Idaho FHC was advertised from 4/21-4/28.

Guppy attended Dworshak SCS production meetings on 4/9 and 4/27. Another SCS production meeting discussing report formats was held on 4/30.

Laura participated in an interagency Draxxin Working Group call on 4/9.

Guppy attended the Snake Basin SCS coordination webinar/conference calls beginning on 4/21 and scheduled for every Tuesday morning after, as available. Guppy also attended an all employee webinar on 4/21.

Hazard Communication training was completed by all staff on 4/27.

Corie and Guppy participated on a conference call on 4/29 to discuss an inter-agency publication on pathogens of Pacific lamprey. Corie submitted information for the publication prior to the call.

Corie and Guppy participated on a call on 4/30 with Rachel Breyta of the Western Fisheries Research Center to discuss a publication on the IHN virus at Dworshak NFH.

Dworshak Maintenance & Operations Activities - Koehler

- We are in the process of designing a and installing an automated sprinkler system for the adult holding ponds. This should be completed by the 22nd of May
- The system two actuator valve repair has been completed. We are currently working on finishing up the lights for the front signage that were left in disrepair from the bridge removal.
- The 20 inch system two discharge pipe, pump #1 has begun. Weather has set us back a couple of days, but should get back to it on the 18th
- The potable water leak has been located and repaired. There is asphalt to be repaired due to this project and we are soliciting estimates for this work.
- It's spring and landscaping is in full swing. Rob Kellar is doing a bang up job and the facility is looking great. Also spending time spraying weeds.
- Hot water heater replaced in Fish Health.

Dworshak Maintenance & Operations Activities

(Continued from page 8)

- C.O.E. owned vehicles were inspected and needed repairs are in process.
- Phase Two of the main aeration chamber is in full swing and while the system is down, we will be replacing three 12 inch wafer valves for pumps #6, #1 and #2



Information and Education

April Activities



Dworshak - Olson

Facebook Statistics: Reach - 3, 856
Engagements - 659

Website Statistics: Unique Visits - 242 Page Loads - 311
First Time visitors - 215 Returning Visits - 27

Visitors: 162 people from 13 states, and Alberta Canada

Tours: Eight tours were conducted reaching 172 K-12 students and 64 adults

Outreach: Visited classrooms in Nez Perce and Orofino Jr./Sr. High schools facilitating fish dissections for four classes and reaching 70 students and 3 adults

Instructed Anadromous Fish Natural History at Water Quality Awareness Field Day at Deyo Reservoir on April 30 reaching 109 K-5 students and 11 adults

Volunteer Hours: Seven volunteers contributed a total of 60.5 hours in April.

- Received Connecting People With Nature grant for Hatchery in the Classroom/Lamprey Outreach

Kooskia– Hills

Visitors: There were 240 visitors to the hatchery during this month; this figure is compiled by staff. Steelhead and Salmon fisherman are checking the trap.

Outreach: None Reported

Kooskia Hatchery Headlines

This activity report is implemented by the Tribal Fish Hatchery Manager, Kent Hills. All information in this report was collected and or performed by the hatchery staff during the preceding month.

Under SRBA and the Clearwater Annual Operating Plan, the Tribe, Service and Idaho Fish & Game have agreed to implement other fish production actions related to KNFH mitigation. Reports will include additional information about other species reared, processed and released in relation to KNFH operations.

Kooskia Chinook Brood Year 2014

There are 850,730 fry on station; they are 360 fish per pound, and are 2.10 inches (53.3 mm). All fish on station are in the outside rearing tanks, they are on well water at a temperature of 53° F. There has been a total mortality this month of 8,399, most was due to pinheads dropping out and some coagulated yoke. The highest mortality was in tanks 14, 23 and 11. Idaho pathology was contacted and the fish were evaluated, showing signs of the bacteria that cause cold water disease present but we have had no outbreaks at this time. Mortality by the end of the month was decreasing. The fry consumed 896 pounds of feed.

Kooskia Adult Trap Operations:

A total of 92 steelhead were trapped, 49 were hatchery females, 34 were hatchery males, 5 were wild males and 4 were wild females. The 44 hatchery females and 29 hatchery males were released into the South Fork of the Clearwater River at Stites Park, 5 hatchery males and 5 hatchery females were released into Clear Creek below the weir, 5 wild males and 4 wild females were released into Clear Creek above the weir. The trap was closed on the 16th of April.

Maintenance & Operations:

- Apr 01: Staff worked on sheet rocking the shop.
- Apr 02: Archeologists arrived to dig test holes for future recirculation tanks.
- Apr 07: 73 fish were taken from the trap, 44 females and 29 males, all were Hatchery fish and were transported to South Fork of the Clearwater River and released for natural spawning. All wild steelhead were put back into the trap for future transport above the weir. Burrows pond rehabilitation project is continuing.
- Apr 08: Release hoses and fish pump were put away.

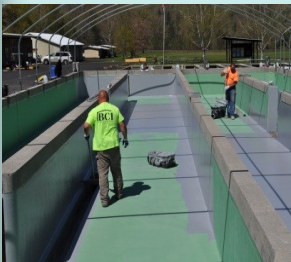


Credit: NPT

Four tanker trucks of Dworshak reared Steelhead smolts were released into Clear Creek April 13, 14, 15.



Credit: NPT



Credit: NPT

The Burrow's pond rehabilitation project was completed!

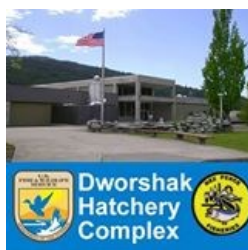
Kooskia Hatchery Headlines

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- Apr 13: The trap was closed to release Steelhead smolts in front of the trap. Three tanker loads of Steelhead smolts were directly released into Clear Creek for migration.
- Apr 14: Four tanker trucks of Steelhead smolts were directly released into Clear Creek for migration.
- Apr 15: Four tanker trucks of Steelhead smolts were directly released into Clear Creek for migration. Work continues on the burrows pond rehabilitation by Burton Construction.
- Apr 16: Contractors began painting the burrows ponds.
- Apr 16: 5 hatchery female steelhead, 5 hatchery male steelhead, 5 wild male steelhead and 4 wild female steelhead were taken from the trap, the trap was then closed. All wild fish were released into Clear Creek above the weir, all the hatchery fish were released into Clear Creek below the weir. Six more tanker trucks arrived with Steelhead smolts which were directly released into Clear Creek, there was a total of 321,500 Steelhead smolts from Dworshak Hatchery released directly into Clear Creek.
- Apr 20: Kenny sprayed weed control in the bone yard and around the weir.
- Apr 21: Hales Flooring began installing new flooring in the break room.
- Apr 24: Burrows pond rehabilitation project was completed, less final walk through repairs.
- Apr 27: Staff finished installing the valve handle on the sediment basin at the screen chamber.
- Apr 29: Hales Flooring completed the flooring project in the break room.
- Apr 30: Staff repaired the trap crowder.

Training and conferences:

- Gerry had a meeting with Idaho County Roads personnel and TD & H Engineering concerning the future bridge work over Clear Creek on the 9th of April.
- Kent attended the production leaders meeting at Dworshak Hatchery on the 2nd.
- Kent went to Lapwai for a meeting with Tribal Fisheries Administrators on the 14th.
- Toll Road Bridge meeting on the 15th.
- Spring Chinook coordination meeting at the Lewiston Fish and Game office on the 17th.
- Kent participated in the first Chinook conference call on the 21st.
- Lower Snake River conference call meeting on increased Clear Creek Lyons Ferry Chinook production 23rd.



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Dworshak Fisheries Complex

<https://www.facebook.com/pages/Dworshak-Fisheries-Complex/411264238917917#>

We can also be found on the
web @

<http://www.fws.gov/dworshak/>



Let's Go Outside!

Connecting People With Nature

<http://www.fws.gov/letsgooutside/>

Staff List

Complex Management:

Steve Rodgers, Complex Manager

Mark Drobish, Project Leader

Adam Izbicki, Jeremy Sommer Assistant Hatchery
Managers

Mike Tuell, SRBA Coordinator

Dr. Marilyn "Guppy" Blair, Project Leader-Idaho
Fish Health Center

Scott Koehler, Maintenance Supervisor

Vacant, Project Leader, Idaho Fishery Resource
Office

Mike Faler, Aquatic Conservation Lead

Dr. William Conner, Fall Chinook Research Lead

Dr. Chris Peery, Fish Production M&E Lead

Kent Hills, Kooskia NFH Manager

Dworshak Production Staff : Angela Feldmann,
Tom Tighe, Rob Bohn, Wayne Hamilton, Mike
Bisbee, Tui Moliga, Lou Ann Lasswell, Steve
Coomer, Carter Lopez, Casey Mitchell, Zach
Broncheau, Jaden Hudson, Steve Jeffers, Jayson
Thompson

Administration: Randy Bowen, Anna Ray (on
Detail from Hagerman National Fish Hatchery),
Administrative Officer– Vacant

Maintenance: Terry Weeks, Rick King, Rob Kellar,
James Oatman, James Paddelty, Melissa Wright,
Joe Livesay

Idaho Fish Health Center: Laura Sprague, Corie
Samson

Idaho Fishery Resource Office: Ray Jones,
Aaron Garcia, Carrie Bretz, Frank Mullins, Jody
Brostrom, Ken Bugler, John Hook, Brad Buechel

Information and Education: Jill Olson

Kooskia National Fish Hatchery: Art Broncheau,
Kenny Simpson, Gerry Fogelman